

REMARKS

The Final Action dated July 27, 2005 in this Application has been carefully considered. Claims 1-27 are pending. The above amendments and the following remarks are presented in a sincere attempt to place this Application in condition for allowance. Claims 1, 2, 12, 14, 16, 17, and 27 have been amended in this Response. Reconsideration and allowance are respectfully requested in light of the above amendments and following remarks.

Claim 27 stands rejected under 35 U.S.C. §112, first paragraph, as “failing to comply with the written description requirement.” Final Action, page 3. Insofar as it may be applied against the Claim, this rejection is traversed and overcome. Claim 27, as amended, recites, “wherein the at least one second current mirror further comprises at least two transistors, wherein the at least two transistors comprises a first transistor and a second transistor, the gate of the first transistor coupled to the gate of the second transistor and to the drain of the first transistor, and wherein the at least two transistors are at least configured to apply current leakage compensation.” Support for this amendment can be found, among other places, in the Original Application description accompanying Figure 3, and in particular at pages 10 and 11. Accordingly, Applicants respectfully request that the rejection of amended Claim 27 under 35 U.S.C. §112, first paragraph, be withdrawn and that amended Claim 27 be allowed.

Claims 12 and 14 stand rejected under 35 U.S.C. §103(a) by U.S. Patent No. 4,748,352 by Kamiya et al. (“Kamiya”) in view of “Fundamental Circuit Analysis,” printed by Science Research Associates, Inc., 1978, pages 378-379 by Alvarez (“Alvarez”). Insofar as they may be applied against the Claims, these rejections are traversed and overcome.

Regarding Claims 12 and 14, Kamiya was cited as assertedly fully disclosing the following:
(1) “a method for current leakage correction for a leaky capacitor (C2), wherein the leaky capacitor

is connected to ground;” (2) “measuring voltage across the leaky capacitor (by 15);” (3) providing the measured voltage to a second capacitor (C3);” and (4) “providing a sustaining charge (by 11) to the leaky capacitor.” Final Action, page 3. Alvarez was cited as assertedly fully disclosing the following: (1) “a capacitor can be made by a plurality of parallel connected capacitors having different sizes in order to meet a desire[d] capacitance.” Final Action, page 3. The Examiner further stated that it would have been obvious to combine teaches of Kamiya and Alvarez in order to “meet a particular desire[d] capacitance of capacitor C3.” Final Action, page 3.

Rejected independent Claims 12 and 14 as now amended more particularly recite one of the distinguishing characteristics of the present invention, namely, “measuring a leakage current of the scaled capacitor” and “generating a sustaining charge *based on the measured leakage current* of the scaled capacitor.” (Emphasis added.) Support for this Amendment can be found, among other places, in the discussion accompanying Figure 3, pages 11 and 12, of the original Application.

The Examiner’s proposed combination of Kamiya and Alvarez does not suggest, teach, or disclose “generating a sustaining charge based on the measured leakage current of the scaled capacitor” as recited in amended Claims 12 and 14. Specifically, Kamiya teaches “a secondary capacitor C2 and a capacitor for integration C3 are connected to the *constant* current source 11.” Kamiya, col. 5, lines 48-50 (emphasis added). Additionally, “when the power source is turned on, a detection signal is supplied from the voltage detection circuit 10 to the constant current source 11 and electric current is supplied from the constant current source 11 to the capacitors C2 and C3.” Kamiya, col. 5, lines 65-68 to col. 6, lines 1-2. Thus, the Examiner’s proposed “providing a sustaining charge (by 11) to the leaky capacitor” fails to teach “generating a sustaining charge based on the measured leakage current of the scaled capacitor,” as recited by amended Claims 12 and 14.

In view of the foregoing, it is apparent that the cited references and proposed combination do not disclose, teach or suggest the unique combination now recited in amended Claims 12 and 14. Applicants therefore submit that amended Claims 12 and 14 are clearly and precisely distinguishable over the cited reference in a patentable sense, and is therefore allowable over this reference and the remaining references of record. Accordingly, Applicants respectfully request that the rejection of amended Claims 12 and 14 under 35 U.S.C. §103(a) be withdrawn and that amended Claims 12 and 14 be allowed.

Claims 1, 2, 7, 13, 15-17, and 22 stand rejected under 35 U.S.C. §103(a) by Kamiya in view of Alvarez and further in view of U.S. Patent No. 6,121,764 by Stokstad ("Stokstad"). Insofar as they may be applied against the Claims, these rejections are traversed and overcome.

Regarding Claims 1 and 16, the Examiner noted that the proposed combination of Kamiya and Alvarez "fails to show the detail of the current source 11." Final Action, page 4. Stokstad was cited as assertedly fully disclosing the following: "a current source having high output impedance, thereby provides accurate output current." Final Action, page 4. The Examiner further stated that it would have been obvious to combine teaches of Kamiya and Alvarez and Stokstad "for the purpose of generating an accurate desired current." Final Action, page 4.

Rejected independent Claim 1 as now amended more particularly recites one of the distinguishing characteristics of the present invention, namely, "wherein the at least one first current mirror is configured to provide the sustaining charge to the leaky capacitor *based on the potential difference* provided by the at least one second current mirror." (Emphasis added.) Support for this Amendment can be found, among other places, in the description accompanying Figure 3, pages 11 and 12, of the original Application.

Rejected independent Claim 16 as now amended more particularly recites one of the distinguishing characteristics of the present invention, namely, “wherein the at least one first current mirror is configured to provide the sustaining charge to the leaky capacitor *based on the measured leakage current and the potential difference* provided by the at least one second current mirror.” (Emphasis added.) Support for this Amendment can be found, among other places, in the description accompanying Figure 3, pages 11 and 12, of the original Application.

Kamiya does not suggest, teach, or disclose, “wherein the at least one first current mirror is configured to provide the sustaining charge to the leaky capacitor based on the potential difference provided by the at least one second current mirror,” as recited by amended Claim 1, or “wherein the at least one first current mirror is configured to provide the sustaining charge to the leaky capacitor based on the measured leakage current and the potential difference provided by the at least one second current mirror,” as recited by amended Claim 16.

Specifically, as described above, Kamiya teaches, “a secondary capacitor C2 and a capacitor for integration C3 are connected to the *constant* current source 11.” Kamiya, col. 5, lines 48-50 (emphasis added). Thus, Kamiya teaches a constant current source 11, not “a sustaining charge” based on either “the potential difference provided by the at least one second current mirror” or “the measured leakage current” as recited in amended Claims 1 and 16.

Furthermore, the Examiner’s proposed combination fails to teach, “a sustaining charge” based on either “the potential difference provided by the at least one second current mirror” or “the measured leakage current” as recited in amended Claims 1 and 16. Instead, the Examiner’s proposed combination supplies “Stokstad’s current source for Kamiya et al.’s current source 11 for the purpose of generating an accurate desired current.” Final Action, page 4.

In view of the foregoing, it is apparent that the cited references do not disclose, teach or suggest the unique combination now recited in amended Claim 1 or amended Claim 16. Applicants therefore submit that amended Claims 1 and 16 are clearly and precisely distinguishable over the cited references in a patentable sense, and are therefore allowable over this reference and the remaining references of record. Accordingly, Applicants respectfully request that the rejection of amended Claims 1 and 16 under 35 U.S.C. §103(a) be withdrawn and that Claims 1 and 16 be allowed.

Claims 2 and 7 depend on and further limit Claim 1. Claims 17 and 22 depend on and further limit Claim 16. Hence, for at least the aforementioned reasons, these Claims would be deemed to be in condition for allowance. Applicants respectfully request that the rejections of the dependent Claims 2, 7, 17, and 22 also be withdrawn.

Applicants contend that the rejections of Claims 13 and 15 are overcome and traversed for at least some of the reasons that the rejections of amended Claims 1 and 16 are overcome and traversed. These reasons include the Examiner's proposed combination not disclosing, teaching, or suggesting "generating a sustaining charge based on the measured leakage current of the scaled capacitor" as recited in amended Claims 12 and 14. Claim 13 depends on and limits Claim 12. Claim 15 depends on and limits Claim 14. Applicants therefore respectfully submit that Claims 13 and 15 are clearly and precisely distinguishable over the cited references in any combination. Accordingly, applicants respectfully request that the rejections of Claims 13 and 15 also be withdrawn.

Claims 3-6, 8-11, 18-21, and 23-26 stand rejected under 35 U.S.C. §103(a) by Kamiya in view of Alvarez and Stokstad, and further in view of U.S. Patent No. 5,689,178 by Otake ("Otake"). Insofar as they may be applied against the Claims, these rejections are traversed.

Regarding Claims 3, 8, 18, and 23, Otake was cited as assertedly fully disclosing the following: "MOSFET is faster than bipolar transistor." Final Action, page 5. The Examiner further stated that it would have been obvious to combine teaches of Kamiya, Alvarez, Stokstad, and Otake "for the purpose of improving the speed of circuit." Final Action, page 5. Regarding claims 4-6, 9-11, 19-20, 21, and 24-26, Otake was cited as assertedly fully disclosing a "Positive-channel FET (P-MOSFET)" and a "Negative-channel FET (N-MOSFET)." Final Action, page 6.

Applicants contend that the rejections of Claims 3-6, 8-11, 18-21, and 23-26 are overcome and traversed for at least some of the reasons that the rejections of amended Claims 1 and 16 are overcome and traversed. These reasons include the Examiner's proposed combination not disclosing, teaching, or suggesting "a sustaining charge" based on either "the potential difference provided by the at least one second current mirror" or "the measured leakage current" as recited in amended Claims 1 and 16. Claims 3-6 and 8-11 depend on and limit Claim 1. Claims 18-21 and 23-26 depends on and limits Claim 16. Applicants therefore respectfully submit that Claims 3-6, 8-11, 18-21, and 23-26 are clearly and precisely distinguishable over the cited references in any combination. Accordingly, applicants respectfully request that the rejections of Claims 3-6, 8-11, 18-21, and 23-26 under 35 U.S.C. § 103(a) be withdrawn and that Claims 3-6, 8-11, 18-21, and 23-26 be allowed.

Applicant has now made an earnest attempt to place this Application in condition for allowance. For the foregoing reasons and for other reasons clearly apparent, Applicant respectfully requests full allowance of Claims 1-27.

Applicant does not believe that any fees are due; however, in the event that any fees are due, the Commissioner is hereby authorized to charge any required fees due (other than issue fees), and to credit any overpayment made, in connection with the filing of this paper to Deposit Account No. 50-0605 of CARR LLP.

Should the Examiner deem that any further amendment is desirable to place this application in condition for allowance, the Examiner is invited to telephone the undersigned at the number listed below.

Respectfully submitted,

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